

Amendment under 37 C.F.R. § 1.116  
U.S. Application No. 09/942,762

### **REMARKS**

Claims 1, 2 and 4-8 have been examined. Claims 2 and 5-8 have been rejected under 35 U.S.C. § 103(a). The Examiner has indicated that claim 1 is allowed, and claim 4 contains allowable subject matter.

#### **Preliminary Matters**

As noted on the Office Action Summary, the Examiner has approved the proposed drawing corrections filed on March 18, 2003. Accordingly, Applicant is submitting substitute formal drawings with this Amendment, and respectfully requests the Examiner to withdraw the objection.

#### **Rejections under 35 U.S.C. § 103(a)**

Claims 2 and 5-8 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 61017351 to Yamada ("Yamada") in view of U.S. Patent No. 4,169,426 to Kornmann et al. ("Kornmann").

##### **A. Claim 2**

Applicant has incorporated the allowable subject matter of claim 4 into claim 2. Accordingly, Applicant submits that claim 2 is patentable over the cited references, and respectfully requests the Examiner to withdraw the rejection.

##### **B. Claim 5**

Applicant submits that claim 5 is patentable over the cited references. For example, claim 5 recites that a flux coating means is directly attached to one end of an inlet seal portion of

a bath container. A linear material is coated with a flux by the flux coating means, such that the linear material is continuously introduced into the bath container through the inlet seal portion.

The Examiner maintains that the combination of Yamada and Kornmann disclose the above features. However, Kornmann does not disclose that flux coating reservoir 10 is directly attached to an inlet seal portion 19, 20 of the bath container 14, such that the linear material 2 is continuously introduced into the bath container 14 directly after coating with the flux (Fig. 1). Specifically, linear material 2 must pass around deflecting rollers 12a, 12b and 12c before arriving at bath container 14 (Fig. 1; col. 3, lines 3-7). Winding around rollers 12a, 12b and 12c does not teach or disclose that the flux coating reservoir 10 is directly attached to inlet seal portion 19, 20, as required by claim 5.

In addition, Yamada fails to teach or disclose the use of a flux coating means. Rather, Yamada only discloses a pre-treating tank 1, which is used for removing stains and oxide films from wire 10, prior to wire 10 passing through nozzle 3 of vessel 2 (Abstract; Figure).

The Examiner maintains that pre-treating tank 1 is connected to nozzle 3, such that a combination of Yamada and Kornmann discloses the claimed invention. Based on the Examiner's comments, Applicant assumes that the Examiner contends that one skilled in the art would modify Yamada by providing a flux in pre-treating tank 1, rather than a pre-treating material to remove stains, etc. However, such modification would be contrary to the teachings of Yamada, and, as shown in the Figure of Yamada, once wire 10 leaves the pre-treating tank 1, it must pass through a separate chamber consisting of rollers, before it enters nozzle 3. Therefore, even if Yamada was modified, pre-treating tank 1 is not "directly" attached to nozzle 3, as

required by claim 5. Further, it appears that Yamada fails to teach or disclose that any type of liquid or material is to be placed in the separate chamber (Figure). Therefore, Applicant submits that Yamada fails to teach that pre-treating tank 1 is directly connected to nozzle 3, such that a linear material will be continuously introduced to a bath container after coating with the flux, as required by claim 5.

In addition, as disclosed in the illustrative, non-limiting embodiment on page 7 of the present Application, the introduction of the linear material into a molten metal infiltrating apparatus (i.e. bath container) immediately after the flux coating (i.e. since the flux coating means is directly attached to one end of the inlet seal portion), can remarkably enhance productivity. Therefore, contrary to the Examiner's assertion on page 3 of the Office Action, the construction of the flux reservoir is not a matter of obvious design choice.

Accordingly, Applicant submits that the combination of Yamada and Kornmann fails to teach or suggest the limitations of claim 5.

#### C. Claim 6

The Examiner has indicated that the limitations of claim 6, regarding the carbon fiber and type of flux, are for an intended use of the apparatus, rather than a structural limitation of the apparatus. Accordingly, on page 5 of the Office Action, the Examiner has suggested that Applicant amend claim 6 by providing a "source" for the carbon fiber and the lithium chloride or sodium chloride, since specific sources would provide additional structure.

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On September 22, 2003, the undersigned contacted the Examiner to discuss an acceptable claim amendment. The Examiner indicated that just indicating a “source” would be acceptable. Accordingly, Applicant has amended claim 6 according to the Examiner’s suggestion. In view of the amendment, Applicant submits that claim 6 is patentable over the cited references.

D. Claims 7 and 8

Since claims 7 and 8 contain features which are analogous to the features recited in claim 5, Applicant submits that claims 7 and 8 are patentable over the cited references for at least analogous reasons as presented above.

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In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

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